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ABSTRACT

This study examines the processes by which students are assigned to courses in high schools. The data are drawn from a longitudinal study of five inner-city high schools located in an eastern metropolitan area spanning three separate school districts. Each school served a population of students that was overwhelmingly disadvantaged. The schools ranged in size from approximately 600 students to approximately 2,800 students. The data derive primarily from semi-structured interviews with key staff members in the five high schools involved in the assignment process. Interview subjects included guidance counselors, grade advisors, special program directors, and departmental chairpersons. Using an iterative, comparative analytic process the data were searched for structural, procedural, and temporal relationships among the data elements to assemble a general model of the student assignment process in the five schools. Major stages of the process captured in the analysis include the determination of school offerings, the development of the master schedule, and the matching of student needs and school resources. Two major trends are apparent. First, the connections between student needs and the assignment process appeared to be loose. School staff often assigned students to classes and programs without adequate information on student needs or school resources. Factors such as student ability, academic performance, and interests played a limited part in the process. Second, the connections between political and administrative processes and the assignment process appeared to be tight. Factors such as staffing constraints, physical space limitations, and regulations from both within and outside of the district did much to determine the scheduling process. Included are 25 references. (Author)

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LOSING TRACK

The Dynamics of Student Assignment Processes In High School

Carolyn Reihl Gary Natriello

Aaron M. Pallas

Report No. 39

October 1992

U.S. DEPARTMENT OF EDUCATION
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Losing Track

The Dynamics of Student Assignment Processes in High School

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Report No. 39

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The Center

The mission of the Center for Research on Effective Schooling for Disadvantaged Students (**CDS**) is to significantly improve the education of disadvantaged students at each level of schooling through new knowledge and practices produced by thorough scientific study and evaluation. The Center conducts its research in four program areas: The Early and Elementary Education Program, The Middle Grades and High Schools Program, the Language Minority Program, and the School, Family, and Community Connections Program.

The Early and Elementary Education Program

This program is working to develop, evaluate, and disseminate instructional programs capable of bringing disadvantaged students to high levels of achievement, particularly in the fundamental areas of reading, writing, and mathematics. The goal is to expand the range of effective alternatives which schools may use under Chapter 1 and other compensatory education funding and to study issues of direct relevance to federal, state, and local policy on education of disadvantaged students.

The Middle Grades and High Schools Program

This program is conducting research syntheses, survey analyses, and field studies in middle and high schools. The three types of projects move from basic research to useful practice. Syntheses compile and analyze existing knowledge about effective education of disadvantaged students. Survey analyses identify and describe current programs, practices, and trends in middle and high schools, and allow studies of their effects. Field studies are conducted in collaboration with school staffs to develop and evaluate effective programs and practices.

The Language Minority Program

This program represents a collaborative effort. The University of California at Santa Barbara is focusing on the education of Mexican-American students in California and Texas; studies of dropout among children of recent immigrants have been conducted in San Diego and Miami by Johns Hopkins, and evaluations of learning strategies in schools serving Navajo Indians have been conducted by the University of Northern Arizona. The goal of the program is to identify, develop, and evaluate effective programs for disadvantaged Hispanic, American Indian, Southeast Asian, and other language minority children.

The School, Family, and Community Connections Program

This program is focusing on the key connections between schools and families and between schools and communities to build better educational programs for disadvantaged children and youth. Initial work is seeking to provide a research base concerning the most effective ways for schools to interact with and assist parents of disadvantaged students and interact with the community to produce effective community involvement.

Abstract

This study examines the processes by which students are assigned to courses in high schools. The data are drawn from a longitudinal study of five inner-city high schools located in an eastern metropolitan area spanning three separate school districts. Each school served a population of students that was overwhelmingly disadvantaged. The schools ranged in size from approximately 600 students to approximately 2800 students. The data derive primarily from semi-structured interviews with key staff members in the five high schools involved in the assignment process. Interview subjects included guidance counselors, grade advisors, special program directors, and departmental chairpersons. Using an iterative, comparative analytic process the data were searched for structural, procedural, and temporal relationships among the data elements to assemble a general model of the student assignment process in the five schools. Major stages of the process captured in the analysis include the determination of school offerings, the development of the master schedule, and the matching of student needs and school resources. Two major trends are apparent. First, the connections between student needs and the assignment process appear to be loose. School staff often assign students to classes and programs without adequate information on student needs or school resources. Factors such as student ability, academic performance, and interests play a limited part in the process. Second, the connections between political and administrative processes and the assignment process appear to be tight. Factors such as staffing constraints, physical space limitations, and regulations from both within and outside the district do much to determine the scheduling process.

Losing Track:
The Dynamics of Student Assignment Processes in High School

As society has placed more demands on the comprehensive high school, school organization has become more complex. The modern high school is organized not only around academic courses and curricular tracks, but also around structural sub-units such as mini-schools or thematic "houses." Contemporary high schools also incorporate a variety of mandated programs such as bilingual education and Chapter 1, or locally developed programs such as dropout prevention programs or programs for teenage parents, designed to meet students' academic, social, and/or personal needs.

Because of this differentiation of school services, students no longer take similar paths through school; their academic histories often vary greatly. Moreover, students come to school with increasingly diverse social backgrounds and expectations for the future which demand equally diverse responses from educating institutions. School personnel can no longer assume that all students have relatively similar academic or social needs and can be "batch-processed" in uniform ways.

The increased differentiation of school services poses new challenges for the assignment of students to courses and programs which are most appropriate to their needs. When high schools served relatively homogeneous populations of students, the process of matching students to courses and programs was straightforward. The diversity that currently exists in students' academic and social needs and in the courses and programs that high schools offer makes this matching process both more important and more difficult. In the best of circumstances, a bad match simply places student learning on hold; but in the worst case, a bad match can drive students out of school ill-prepared for what lies ahead of them.

Much of the literature on assignment processes in high school concerns the advantages and disadvantages of tracking and ability grouping (Alexander, Cook, & McDill, 1978; Gamoran, 1988; Oakes, 1985; Rosenbaum, 1980). This body of research generally assumes that tracking is intended to be a rational process, with students placed in tracks on the basis of their academic abilities, prior performance, or interests, so that they may receive instruction that is appropriate to their needs and expectations.

There has been serious criticism of high school tracking practices, most of it focusing on four aspects of the problem: (a) the tendency for minority group members to be disproportionately placed in low-level tracks or ability groups (Oakes, 1985; Vanfossen, Jones, & Spade, 1987); (b) inequalities in the content, pacing, and methods of instruction offered to students in different tracks (Gamoran & Berends, 1987; Oakes, 1985; Rosenbaum, 1980; Shavit & Featherman, 1988); (c) the likelihood that once a student is placed in a track, he or she is seldom moved to another track despite improvements or declines in performance (Rosenbaum, 1976; 1980); and (d) the tendency for students in different tracks to have very different rates of high school graduation and college attendance (Alexander & Cook, 1982; Alexander, Pallas, & Holupka, 1987; Bachman, Green, & Wirtanen, 1971; Oakes, 1985).

The present study examines a fifth problem with assignment processes in high schools, especially as they apply to disadvantaged and at-risk students: the assumption that students are assigned to classes, tracks, structural sub-units, or special programs according to adequate information on a range of valid selection criteria. If decisions about student placement are based on weak or missing evidence, then the negative consequences of those decisions take on added significance.

There are several reasons to question the assumption that high school students are assigned to courses and programs rationally

on the basis of information about their abilities, performance, or interests. First, a recent review of national and local efforts to evaluate programs for dropouts and disadvantaged youth (Natriello, McDill & Pallas, 1990) suggests that it is often not known how students are selected to participate in programs. A series of evaluations of alternative dropout prevention programs in New Jersey (New Jersey State Department of Education, 1989) reveals that program administrators themselves are often unable to specify how students were selected to participate in a particular program. If administrators cannot articulate how students are selected to participate in school programs, it is difficult to argue that students are selected on the basis of ability or other systematic criteria.

Second, large scale studies of track placement invariably find that most of the variation in track placement cannot be explained by conventional measures of ascription and achievement. Although social background factors and prior academic performance and coursework may help to explain why some youth enter a college preparatory track and others enroll in a general track, these factors rarely account for more than 40% of the variation in track placement (Alexander & Cook, 1982; Rehberg & Rosenthal, 1978). The startling implication is that other, unmeasured factors are more important than prior academic success in determining high school track placement.

Third, an initial examination of the procedures used to assign students to classes in urban high schools suggests that those responsible for making such assignments may lack the necessary information on student ability and background to make appropriate assignments (More Responsive High Schools Project, 1990). Counselors and administrators report that they lack two kinds of information necessary to assign students to classes that are likely to meet their needs -- aggregate information on age-classes of students and performance information for individual students. We examine each of these information needs briefly.

In order to develop a school's master schedule with an appropriate number of sections for each course, especially when students are assigned to courses by ability level, school administrators need to know the ability levels and prior performance histories of entire age-classes of students. Yet administrators report that they often lack such information at the time when decisions about the master schedule must be made. For example, in planning the next term, administrators may schedule the same number of course sections of Algebra II as there are course sections of Algebra I in the current term, without knowing whether the students currently enrolled in Algebra I have the requisite skills or inclination to succeed in Algebra II.

This situation may be even worse when planning a master schedule for students not currently enrolled in the high school. Administrators and counselors may not have any information on the abilities or performance histories of incoming students. As a result, decisions about the configuration of course offerings often follow long-standing tradition or at least the previous year's configuration. This produces a master schedule that provides fewer courses of some kinds and more courses of other kinds than are eventually needed by the incoming group of students. Some courses become overcrowded, while others are undersubscribed.

Problems in planning the appropriate instructional offerings to meet student needs are even more difficult in schools serving disadvantaged populations because such schools often must deal with large numbers of transfer students. Indeed, in some urban high schools, hundreds of students may enter and leave in a single month (Fine, 1987). Schools are seldom in a position to assess the shifting needs of changing groups of students on an on-going basis.

Once a master schedule is devised, in order to make appropriate assignments of students to courses and tracks, school guidance and counseling staff need information on the performance of individual students. This

information is needed at the time when course scheduling is completed, but administrators and counselors report that they often lack such information. For example, staff from one high school report that student schedules are finalized in August and September, but that guidance counselors do not receive information on standardized test performance until November (More Responsive High Schools Project, 1990). This leads to the rescheduling of students in the middle of the semester. In schools serving disadvantaged populations this rescheduling process may consume large amounts of counselor time, leave teachers with constantly changing classes of students, and frustrate and confuse the students themselves.

The purpose of the current study is to examine more systematically the nature of course scheduling and program assignment processes in urban high schools serving large numbers of disadvantaged students. In doing so, we hope to identify at least tentative answers to two critical questions. First, to what extent does the course scheduling process respond to the needs of disadvantaged youth? Second, what factors influence the scheduling and assignment process? The answers to these questions may provide insights into potential changes in assignment processes that might make urban high schools more responsive to the needs of the students they serve.

METHOD

The data for this study are drawn from a longitudinal study of five inner-city high schools located in an eastern metropolitan area spanning three separate school districts. Each school served a population of students that was overwhelmingly disadvantaged. In two of the three cities, the high schools in this project received students from an attendance zone who were not admitted to selective and magnet high school programs elsewhere in the city. In the third city the high school in the project was the only high school in the district. Each of the five schools offered a comprehensive high school program. The schools ranged in size from approximately 600 students to approximately 2800 students.

The data for the present paper derive primarily from semi-structured interviews with key staff members in the five high schools who were involved in the assignment process. Interview subjects included guidance counselors, grade advisors, special program directors, and departmental chairpersons. As a validity check on the interview data, discussions were also conducted with a group comprised of one or more representatives from the administrative or guidance staff of each school. These individuals have served as liaisons and key informants for the study since its inception in the spring of 1990. The group discussions focused on cross-school comparisons of programs, policies, and problems with the assignment process.

Preliminary summaries of the interviews were prepared for each school; these were used to identify tentative directions for description and analysis. The data were then organized on a computer-based textbase which permitted manipulation of individual paragraph units of text. The results of each interview were coded using a set of broad categories related to the school curriculum, the school master schedule, and the assignment process. The coding scheme was further developed, with sub-categories representing key actors and their roles, the sequencing of events, the main focus of the action or concern being reported, and the outcomes of the action or concern.

Using an iterative, comparative analytic process similar to that described in Strauss (1987), Miles and Huberman (1984), and Bogden and Biklen (1982), we searched for structural, procedural, and temporal relationships among data elements until we were able to build a general model of the student assignment process in the five sample schools. For the analysis reported here, we focused on the relations among variables

which might explain why student assignment is organized in particular ways, and on evidence of the effect of the assignment process on students themselves. The decontextualization of data into categorical units enabled us to recontextualize our findings along more conceptual lines (c.f., Tesch, 1990).

RESULTS

Delany (1991) has described the student scheduling process as a sequence of steps that lack the features of rational decision making because actors are constrained by many forces. Our findings on the process of student assignment in five urban high schools essentially concur with this characterization. There were more similarities than differences among the five high schools in how the process was organized; we therefore present a general description of the process across sites with illustrative examples.

Determination of School Offerings. Student assignment begins when school personnel select and develop the courses, programs, and services which they will make available to students. In all five schools, this was a limited activity, with only minor changes made in school offerings from one year to the next. State curriculum requirements and resource constraints (and less often, resource opportunities) played a major role in determining what academic and social services would be offered.

All five schools had experienced recent changes in state requirements for high school graduation. These changes primarily concerned mandated testing in content areas and basic skills, but they affected school curricula because students who failed proficiency tests (or who were in danger of doing so) were required to enroll in remedial courses in addition to regular academic courses. Students needing remediation in one or more subject areas thus had reduced opportunities to add elective courses to their schedules; as a result, all of the schools reported that they offered fewer elective courses than had been the case in previous years.

Proficiency tests had other effects on school curricula. For example, staff of one of the schools justified the policy of ability grouping in English and math as a necessary response to the need to prepare students for proficiency tests. In another school, staff reported that the ready availability of funding for basic skills remediation encouraged the increase in numbers of students assigned to remedial courses.

School staffing posed a major resource constraint on program development. For example, the smallest school in the study was an alternative high school that had only enough staff members to offer courses required for graduation; virtually no electives were offered in major subject areas, and there were no vocational courses to supplement the academic curriculum. Moreover, the school could generally offer only one or two sections of each distinct course, so that it was nearly impossible to differentiate tracks or ability levels of any kind. In two other schools, vocational offerings had greatly eroded over a period of years because of staff reductions and turnover, and because the school administrations felt the need to concentrate on strengthening the academic curriculum.

Funding for supplies and equipment was another resource constraint on program development. Two schools reported that the lack of adequate funding for textbooks influenced whether certain courses were offered. In one school, vocational offerings were affected by the availability of contemporary equipment.

Some school offerings were buffered from the effects of resource constraints. Staff members in several schools reported that high-level courses such as calculus or physics were not canceled even when there were too few students to justify a teacher position. The justification given was that

such courses provided an incentive for teachers and gave a measure of respectability to the school curriculum; this latter was the reason also given for why the smallest school district in the study instituted a gifted and talented program.

A strong theme running through the entire student assignment process concerned the limited availability of adequate information to inform decision making, and the limited ability of school personnel to process information efficiently and effectively. In general, school staff reported that student needs were not systematically assessed before the school curriculum or support services were planned. Respondents commonly reported that low-ability students influenced the curriculum because of their need for remedial courses, but that otherwise there was little knowledge of aggregate student characteristics that might inform curriculum development.

We encountered a very limited number of instances in which new school offerings were created because local personnel perceived that students needed them. In one school, a guidance counselor developed an alternative program for students at risk of dropping out because he felt strongly that these students were not well served by the regular curriculum. This program allowed students to attend classes after the close of the regular school day and to receive supplementary guidance services and family support services. In another school, the principal strongly supported the development of several computer courses because he considered it a necessary addition to the curriculum.

Development of the Master Schedule. Once curricula and services have been selected, a master schedule of courses is developed for the school. Here again, a variety of constraints affected the process in the five schools in our study.

One limitation concerned the physical plant of the school. Many urban schools, including some in our study, are overcrowded. Moreover, remedial and special education classes (such as Chapter 1 classes or other specially funded programs with class size caps) take up many available classrooms and involve relatively few students. Several staff reported that they could not always offer the number of classes they wanted to, at the times they were most needed by students, simply because they could not find space for the classes.

A further limitation related to physical space was that, because there were rarely any empty classrooms in the school buildings, the schools' master schedules did not include free periods or study halls. Some educators debate the utility of study halls; we are not addressing that issue here. However, school staff reported that they sometimes had to assign students to random classes which the students did not select, simply in order to fill up "holes" in students' schedules. The educational consequences of giving students unwanted classes, or of students having no free time within the school day, are unclear, but these practices are vivid departures from conventional images of the high school curriculum.

Budget constraints affected the master schedule as well as the general curricular programs. Two schools reported that it would be in students' best interests to increase the number of periods in the school day, so that students could accommodate remedial classes, repeat courses they had failed, or take electives, and still graduate in something close to four years. But they were prevented from doing so by limitations on teacher units allocated to the schools by their districts.

The limited availability of information on students also affected the development of schools' master schedules. In order to plan for an appropriate number of sections for each course, especially when students are assigned to courses by ability level, school administrators need to know the ability levels and prior performance histories of entire age-classes of students. Yet administrators reported that they often lacked such information at the time when decisions about the master schedule needed to be made.

This problem was especially serious where incoming students or transfer students were concerned. School staff reported that they would plan the master schedule around anticipated cohorts of entering students, but that many of those students would never arrive at the school, and other students with very different needs would enroll instead.

Matching Students and School Services. The third stage in the process of student assignment involves matching students to school resources -- scheduling them for courses, enrolling them in special programs, and so on. Resource constraints were relevant at this stage as well, and it was at this stage that information and information-processing resources were found to be most constrained, and that the timing of the process became most crucial.

The first resource issue concerned the limited numbers of guidance counselors and other support staff available to work with students, both at the time of course selection and regularly throughout the school year, to assess student progress and needs and to help students select appropriate courses. Many guidance staff reported that they did much course assignment without even speaking with students, because they simply didn't have enough time to meet with students individually. Staff in several schools reported that many problems would be alleviated by having guidance counselors working over the summer to process course selection changes based on final course grades and test scores, but that this was impossible due to budget constraints.

Technical resources to support the scheduling and assignment process itself presented major resource constraints on scheduling and assignment. Each of the schools we studied used a computerized scheduling program that was selected at the district level. Most schools reported that their scheduling program's algorithms were inadequate for handling all local exigencies, resulting in many poorly-programmed students whose schedules had to be corrected on a one-by-one basis. Moreover, the time frame imposed by the scheduling process allowed for very little slack time to correct problems.

The information-processing and paperwork burdens imposed by scheduling practices were great. Guidance counselors and grade advisors typically had to look for information in many disparate places: permanent record folders with transcripts and report cards for individual students, aggregate listings of student test scores, menus of course offerings (which often listed only a course name, not descriptive information or time or teacher), scraps of papers with notes from teachers about recommendations for particular students or classes, memoranda containing course pre-requisite information or descriptions of new courses, and so on. Course selections typically had to be recorded in one format (or more) for the counselor's records and the student's use, and in another format for entry into the computer scheduling program. Managing all of this paperwork was a difficult and inefficient process.

Another problem that appeared at first glance to be an unavoidable result of the logistics of programming and scheduling was that due to the complicated nature of the process, there was generally only a small number of staff members who had a "final say" in determining students' programs. This created some resentment and consternation among the other staff who worked directly with students. We encountered many guidance counselors who could not understand why they could not have more influence over the final determination of their students' schedules. Even more, students themselves were cut out of the process and were often handed a program that looked radically different from the one they expected to receive.

Federal and state regulations about curricula and programs also affected the scheduling and assignment process. Staff reported that many special programs such as Chapter 1 or special education have entrance criteria that allowed them little room for discretionary judgment, even when they had information that student needs would not be met by a particular placement decision. Some regulations changed with little advance

notice, so that at programming time school staff were unclear as to who even might be eligible for a special program.

Two examples provided by guidance personnel in the high schools in our study illustrate the primacy of regulatory exigencies over the needs of students. One counselor explained that one of his most difficult tasks was explaining to a student and perhaps his or her parents in the fall that an assignment to regular high school classes made the previous spring was being superseded by assignment to Chapter 1 classes. The reason for the change was not new or better information on the student's academic progress and potential. Rather, the reassignment was due to a change in the cutoff point for entry to Chapter 1 dictated by the need to maintain sufficient numbers of students in the classes. Another counselor in the same school explained that the schedules of many freshmen were completely dictated by state regulations triggered by poor performance on a preliminary test in eighth grade that indicated a student would have difficulty passing the state minimal competency test in the tenth grade. The counselor complained that scheduling students for all basic skills classes precluded offering them opportunities to enroll in something related to personal or vocational interests that might keep them sufficiently engaged in school to keep them from dropping out.

In addition to the impact of resources and regulations, the scheduling process was also directly affected by requests from a variety of actors in the school. The term "requests" may not seem sufficient to characterize the variety of political activities that influenced the assignment process in the five high schools, but in many cases the political acts were simply that, requests made of those controlling the scheduling process.

The group of individuals whose requests were most readily honored were those who made requests least frequently, parents of students. Staff in all five schools in our study reported that parents rarely got involved in the course assignment process, and that when they did intervene, their requests were usually granted. This did, however, sometimes work against students, as in the case reported to us of parents wanting their children to be removed from bilingual instruction before the children were, in the judgment of school personnel, ready for mainstream classes.

School staff also made requests of those operating the scheduling process, and occasionally backed up these requests with more forceful action. For example, a guidance counselor in one of the high schools reported intense lobbying activity from staff in departments with many elective courses who were motivated by the need to maintain course enrollments to retain teaching positions. Such "requests" were not viewed by this particular guidance counselor as being in the best interests of the students. Another kind of "request" came from teachers who routinely rejected students during the first few weeks of the term in order to achieve a more workable class size.

Students themselves often learned to manipulate school processes to influence the assignment process. For example, a department chair in one school reported that bilingual students often wanted to remain in the smaller and more supportive classes of the bilingual program even when their language skills had improved, so they deliberately scored poorly on exit tests. In another school, staff reported that students' refusal to attend particular classes late in the school day limited their ability to offer certain classes.

School staff in the five high schools often had to assign students to classes and programs without adequate information to determine what assignments would be most appropriate with regard to student needs. The greatest information gap concerned information about students themselves. For example, staff often lacked information on students' ability as measured by standardized tests. These measures were important for placing students in remedial education classes and were also sometimes used for placing students in different ability levels of courses such as mathematics and language arts. It was not unusual in the schools in the study

for students to have to be moved into or out of remedial or basic skills classes after proficiency test scores became available, often after an academic term had begun.

Moreover, these test scores themselves could be inaccurate or outdated: one school in the study was forced to use test scores that were nearly two years old to program students. Another school reported a litany of problems in the testing of bilingual students' language proficiency that rendered test scores almost useless. Nevertheless, the ritual application of sometimes meaningless standardized test information to the scheduling process proceeded without fail in accord with district policy. One of our five schools did obtain current test data for scheduling purposes, but only by committing substantial school resources to in-house scoring of such tests before they were sent to district and state offices. This local initiative was neither recognized nor rewarded by the district.

Staff members making assignments also often lacked information on students' current academic performance. On the most basic level, it is important to know whether students will pass a pre-requisite course before being assigned to a subsequent course in an academic sequence. On another level, it is important to know whether a student is performing well enough in a particular class to justify continued placement in classes at similar ability levels. Because students had to be scheduled for a future term's courses before the end of the current term, school staff had to make projections of whether students would pass the courses in which they were currently enrolled. Typically, guidance counselors made these projections on the basis of mid-term grades or teacher recommendations. But staff involved with the assignment process in the five high schools indicated that these projections were frequently inaccurate, so that it then became necessary to re-assign students to more appropriate classes. One school grade advisor indicated that it was necessary to know student performance in mathematics for the two previous semesters in order to accurately place students (if students in that school took and failed the same math course twice, they had to be assigned to a different ability level), but that he was not able to look this information up at the time he helped students select their courses.

In some cases, school staff also reported that they lacked basic information on students' special program interests which would guide their placement into vocational or other classes. In two schools in the study, students had several special curricular options which they selected prior to coming to the school. But because many at-risk students became caught up in a cycle of remedial basic skills courses, the school staff lost track of which special courses students were initially interested in, and the students often were not assigned to them.

Although information on students' progress toward graduation, including what required courses (and exams) had or had not been taken, was usually available, guidance staff reported that it was often not accessible in an efficient manner at the time it was needed. Guidance staff reported that they repeatedly had to calculate outstanding graduation requirements for students from transcript histories, and that this process was prone to error. It was not uncommon for students to have to take independent study classes or several courses in one academic department during their last term, to make up for missed requirements.

A particular problem for school staff who assigned students to courses was the lack of information on students new to the school. Incoming ninth graders were often scheduled for high school courses at their junior high schools; in most cases, these students were assigned to a very basic curriculum with little room for variation. But scheduling errors were sometimes made because school staff did not know that students were eligible for remedial or special education, or because there was inadequate information for accurate ability group placement.

Urban student mobility was a problem affecting the course assignment process for students across all grade levels. The schools in our study regularly admitted large numbers

of students transferring from other schools. These students would often arrive without previous school records or with records that were difficult to interpret (especially records from foreign countries). While this problem might be only a minor nuisance in schools with one or two transfer students, when the numbers climbed to 200 or more, school staff were burdened with a tremendous volume of work. Under such conditions staff could not spend time carefully assessing students' needs, and they had difficulty finding room in appropriate classes for these extra students.

Not only did school staff lack information on students, but they also lacked information on the school program. Guidance staff responsible for assigning students to courses often had only a cursory knowledge of the prerequisites, curriculum content, or ability level of particular courses. Thus, they did not always match students and courses properly. School staff reported that guidance staff were often not effective at placing students in newly-established courses, or in the more esoteric or unusual courses that might appeal to particular students.

Finally, school staff lacked information on the current status of the school's master schedule. Prior to the start of a term, teachers are selected and course sections are assigned on the basis of a preliminary analysis of the courses to which students will be assigned. When counselors seek to make changes in student course schedules or to program newly arriving students, they need to know whether particular courses are full, or even whether they have been canceled. In the schools in our study, although there was an effort to inform counselors of changes in the master schedule, staff could not monitor changes in the schedule at the time they were scheduling individual students into courses. This resulted in over- or under-scheduling of certain classes and an additional set of scheduling changes to create similar size classes.

DISCUSSION

Our initial accounting of the process by which students are assigned to classes in the five inner-city high schools in our study reveals two types of connections among elements of these school organizations that shape the nature of the scheduling and assignment process. The image of the process that emerges from our inquiry is one derived from the juxtaposition of loose connections of the scheduling process with students' needs and the available instructional resources of the school, on the one hand, and tight connections of the scheduling process with the political and administrative processes of the school organization, on the other hand.

The Loose Connection of the Scheduling and Assignment Process with the Available Instructional Resources

School staff in the five high schools often must assign students to classes and programs without adequate information to determine what assignments would be most appropriate with regard to student needs. The greatest information gap concerns information about students themselves. Staff members making assignments also often lack information on students' current academic performance. Nevertheless, the fiction of the well-informed counselor meeting with the inquiring student was maintained so that scheduling could be completed.

In some cases, school staff also reported that they lack basic information on students' special program interests which would guide their placement into vocational or other classes. Although information on students' progress toward graduation, including what required courses (and exams) have or have not been taken, is usually available, guidance staff report that it is often not accessible in an efficient manner at the time it is needed.

A particular problem for school staff who assign students to courses is the lack of information on students new to the school. Urban student mobility affects more than the entering class. The schools in our study

regularly have large numbers of new students at all grade levels, who often arrive without previous school records or with records that are difficult to interpret (especially records from foreign countries).

Not only do school staff lack information on students, but they also lack information on the school program. Guidance staff responsible for assigning students to courses often have only a cursory knowledge of the prerequisites, curriculum content, or ability level of particular courses. Thus, they may not match students and courses properly. School staff reported that guidance staff are often not effective at placing students in newly-established courses, or in the more esoteric or unusual courses that might appeal to particular students.

Finally, school staff lack information on the current status of the school's master schedule. Overall, the work of counselors and other staff responsible for making student assignments was largely unconnected to the work of classroom teachers; other data from these schools suggest that counselors and teachers did not share much information about students with each other (Pallas, Natriello, & Riehl, 1991).

The Tight Connection of the Scheduling and Assignment Process with Political and Administrative Processes

Most of the factors that do seem to have a strong influence on the assignment process relate more directly to school political and administrative processes than to student-based concerns. We cite three examples.

First, we have already described how staffing constraints affect all stages of the assignment process, from the development of curricular offerings to the time which staff can spend helping students choose courses. It appears that school staffing policies often are oriented more to the needs of staff and the school bureaucracy than to the students. Policies and resources in the districts in our study currently prevent schools from hiring teachers on an as-needed basis. Thus, for example, if a number of students need or want advanced chemistry, or drafting, or instrumental music, these students may not get what they want because the school cannot easily respond by hiring appropriate staff.

Staffing poses another significant limitation on what courses students may be offered: union agreements and district policy often dictate that faculty retention decisions for the next school year must be made early in the spring. This is typically before it is clear what courses students will need during the next term, and also often before student proficiency test scores are known. Thus, the staffing configuration of a school is often determined before it is clear what classes students will need. In extreme cases, this could result in one department having extra teachers, while other departments have teacher shortages.

A second example of the tight connections between scheduling processes and school administrative or political processes concerns the technology used for scheduling and the timing of the scheduling process. Each of the three districts in our study selected computer software and imposed time frames that were compatible with district interests, not student needs. In the case of scheduling software, the selection often had more to do with a software application's compatibility with other software or hardware used for district business than with its suitability for an individual school. Indeed, examination of commercially available software for schools reveals many products geared toward the external reporting and financial management needs of the district officials who make purchasing decisions, and no products that truly respond to the needs of school-based personnel.

In one of our schools, school staff with an interest in linking school instructional resources to student needs found it necessary to abandon a commercial package and contract with programmers to develop customized software responsive to the needs of school staff. In the case of the time frames imposed by the district, the decision often had more to do with district-wide policies and

plans than with any attempt to meet the needs of students and instructional staff.

A third example of the connections between scheduling processes and political-administrative processes concerns the ultimate arbiters of student schedules. We have described above how those staff who work most directly with students, not to mention the students themselves, sometimes found their assignment selections overruled by others whose primary responsibility was to see that various features of the master schedule were not violated, for example class size caps. This pattern of a few people having a final say about student assignments is the result of the greater importance placed on managing and controlling the master schedule than on responding to the needs of students. The districts in our study invested in personnel and systems that guaranteed that the school could develop a master schedule that "worked," regardless of whether it was truly responsive to student needs.

CONCLUSION

We have shown that, at least in our sample of inner-city high schools, assignment processes often are not responsive to student needs. Scheduling and assignment processes frequently result in student placements that defy the image of the school as a rational bureaucratic organization that purposively sorts and selects students along one or more dimensions of educational promise.

If the assignment process is not driven by student needs, what exactly does drive it? We found that the assignment process was reactive rather than proactive, responding to external resource constraints and regulations that often seem arbitrary and capricious. Still, we have been more successful in identifying barriers to the assignment process than in understanding why it functions as it does. There were very real barriers in the schools we studied that prevented the class assignment process from responding to student needs. The lack of adequate information, the limits on physical and staff resources, external bureaucratic regulations, and internal political issues all acted to impede the assignment process. These factors were potent and deterministic; it was much easier for school staff to work around or even ignore student needs than to work around or ignore these factors.

While these barriers may exist in most secondary schools, they are even more problematic in schools serving predominantly disadvantaged students. Such schools have higher student turnover, both at the beginning of the year and during the school year. The instability and diversity of the student bodies in these schools aggravate the problem of getting accurate, up-to-date information on both individual students and aggregate student needs.

Moreover, there is much less margin for error among predominantly disadvantaged populations. More able students can compensate for poor assignments, at least until they are resolved. But low-achieving students on a downward trajectory present fewer opportunities for academic success. Schools serving students with diverse needs must make more fine-grained assignment decisions than schools serving more homogeneous student populations.

Urban schools also experience more budgetary turmoil than other schools, resulting in instability in school offerings and shorter timeframes for making program adjustments. In addition, demands on the physical plant of urban schools created by greater enrollments in special programs requiring smaller class sizes increase the salience of resource constraints.

We can imagine a different scenario in schools serving more advantaged populations of students. The advantages experienced by the students in such schools multiply quickly. At the aggregate level, schools that have considerable resources and time are more likely to fashion curricula that conform to aggregate student needs. At the individual level, the process of matching individual students to curricula may be more efficient

when there are extra resources and sufficient time to consider alternative program arrangements. Moreover, schools serving more advantaged students typically are much less at the mercy of the bureaucratic strictures accompanying federal and state dollars that create structural locations in the school that must be filled by students, whether they will benefit from those placements or not.

Students in schools serving predominantly disadvantaged populations thus are trebly disadvantaged. They often find themselves in settings where student assignments are determined by everything except students' academic needs. Particularly in large, impersonal schools, disadvantaged students may fall between the cracks in the assignment process, resulting in placements unrelated to their academic and social needs. They, and their families, may lack the personal resources to fight the system for more appropriate placements. And the resulting course assignments may lead them to lose even more ground relative to their more advantaged peers. When schools serving disadvantaged students lose track of such students, they are ever more likely to wind up in the losing track.

Our tentative formulations are consistent with a view of schools as loosely coupled systems (Weick, 1976). In this model, the formal structure of organizations is disconnected from the technical core work activity. In the case of schools, the imagery of loose coupling implies that the formal organizational arrangements of schools are decoupled from teaching and learning, and various organizational subunits function largely independently. The loose coupling perspective can be contrasted with a classical management perspective that emphasizes the direct coordination and control of teaching and learning by administrators. While loose coupling can sometimes foster benefits such as increased innovation and containment of problems, it has negative effects when coordination is desirable but unavailable.

A loose coupling orientation suggests that the process of assigning students to classes and programs may be disconnected from core concerns about teaching and learning. The image of schools as loosely coupled systems also hints that the organizational subsystem responsible for student assignments, housed largely in the guidance area, is not coordinated or integrated with the organizational subsystem most responsible for teaching and learning, comprised mainly of academic departments and classroom teachers.

This analysis is also consistent with the notion of schools as institutionalized systems, maintaining the appearance, but not the reality, of rational technical processes in order to promote their legitimacy to external observers (Meyer & Rowan, 1977). In this view, school processes are tightly coupled to external expectations but only loosely coupled to purported school goals.

The present discussion serves primarily to generate hypotheses, not test them. Verifying these initial observations will require additional data analysis. Still, the process so far has generated even more questions to be explored. We have described an assignment process that is demonstrably nonresponsive to student needs. A key question to emerge from this analysis is -- how do schools maintain their image as rational, bureaucratic organizations in the face of nonrational processes so close to their technical core?

REFERENCES

Alexander, K.L., Pallas, A.M., & Holupka, S. (1987). Consistency and change in educational stratification: Recent trends regarding social background and college access. In R.V. Robinson (Ed.). *Research in Social Stratification and Mobility, vol. 6.* (pp. 161-185). Greenwich, CT: JAI Press.

Alexander, K.L. & Cook, M.A. (1982). Curricula and coursework: A surprise ending to a familiar story. *American Sociological Review, 47*, 626-640.

Alexander, K.L., Cook, M.A., & McDill, E.L. (1978). Curriculum tracking and educational stratification: Some further evidence. *American Sociological Review, 43*, 47-66.

Bachman, J.G., Green, S., & Wirtanen, I. D. (1971). *Youth in Transition, Vol. III: Dropping Out -- Problem or Symptom?* Ann Arbor, MI: Institute for Social Research.

Bogdan, R.C. & Biklen, S.K. (1982). *Qualitative Research for Education: An Introduction to Theory and Methods*. Boston: Allyn and Bacon, Inc.

Fine, M. (1987). Why urban adolescents drop into and out of high school. In G. Natriello (Ed.), *School Dropouts: Patterns and Policies*. (pp. 89-105). New York: Teachers College Press.

Gamoran, A. (1989). Measuring curriculum differentiation. *American Journal of Education, 97*, 129-143.

Gamoran, A., & Berends, M. (1987). The effects of stratification in secondary schools: Synthesis of survey and ethnographic research. *Review of Educational Research, 57*, 415-435.

Garet, M.S. & DeLany, B. (1988). Students, courses, and stratification. *Sociology of Education, 61*, 61-77.

Meyer, J. & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology, 83*, 340-343.

Miles, M.B. & Huberman, A.M. (1984). *Qualitative Data Analysis: A Sourcebook of New Methods*. Beverly Hills, CA: Sage Publications.

More Responsive High Schools Project. (1990) Report on Initial Site Visits. New York: Teachers College, Columbia University.

Natriello, G., McDill, E.L., & Pallas, A.M. (1990). *Schooling Disadvantaged Children: Racing Against Catastrophe*. New York: Teachers College Press.

N.J. State Dept. of Education. (1989). Programs to Aid Disruptive Youth. Trenton, NJ: Author.

Oakes, J. (1985). *Keeping Track: How Schools Structure Inequality*. New Haven, CT: Yale University Press.

Pallas, A.M., Natriello, G., & Riehl, C. (1991). Connecting the apple to its core: an analysis of how high school staff members value and exchange information on student performance. Paper presented at the annual meeting of the American Sociological Association, Cincinnati, OH, August.

Rehberg, R.A. & Rosenthal, E.R. (1978). *Class and Merit in the American High School.* New York: Longman.

Rosenbaum, J.E. (1976). *Making Inequality: The Hidden Curriculum of High School Tracking.* New York: Wiley/Interscience.

Rosenbaum, J.E. (1980). Social implications of education grouping. In D.C. Berliner (Ed.), *Review of Research in Education, Vol. 8.* (pp. 361-401). Washington, DC: American Educational Research Association.

Schatzman, L. & Strauss, A.L. (1973). *Field Research: Strategies for a Natural Sociology.* Englewood Cliffs, NJ: Prentice-Hall.

Shavit, Y., & Featherman, D.L. (1988). Schooling, tracking, and teenage intelligence. *Sociology of Education, 61,* 42-51.

Strauss, A.L. (1987). *Qualitative Analysis for Social Scientists.* Cambridge: Cambridge University Press.

Tesch, R. (1990). *Qualitative Research: Analysis Types and Software Tools.* New York: The Falmer Press.

Vanfossen, B., Jones, J. & Spade, J. (1987). Curriculum tracking and status maintenance. *Sociology of Education,* 104-122.

Weick, K.E. (1976). Educational organizations as loosely coupled systems. *Administrative Science Quarterly* 21:1-19.